OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Org/Reviewer

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3845
Document:	Binder XIII EEF Footings	Category: Technical		
Location:	EEF FOOTINGS			
Comment:	S-1			

160. The overall building dimensions are incorrect.

Response by Dave Stephens. We recommend that the dimensions be corrected.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3846
Document:	Binder XIII EEF Footings	Category: Technical		
Location:	EEF FOOTINGS			
Comment:	S-1			

161. Note 3 should state that additional reinforcement for handling and erection shall be added - if required-by the Subcontractor.

Response by Dave Stephens. We recommend modifying the drawing and/or specification to address the potential for and responsibility for additional reinforcement for handling special handling inserts, rigging, or etc.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3847
Document:	Binder XIII EEF Footings	Category: Technical		
Location:	EEF FOOTINGS			
Comment:	S-1			

162. The typical reinforcement specified in Note 3 does not include any steel for the vertical faces, and is probably not appropriate for pieces such as K and T. Typical reinforcement details for different block geometry's are recommended.

Response by Dave Stephens. It is recommended that reinforcement details be added for the various block geometries.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3848
Document:	Binder XIV-A RAE	Category: Other (clarification/wording)		
Location:	RAE			
Comment:	General, S-01522			

163. The scope of work under this Section is not clear. Are enclosures a project requirement, or for contractor convenience? If they are a project requirement, what is the intent? Is the RAE to be erected within an enclosure? Is heating and lighting required? How does the work get staged (crane access, etc.)? When does the enclosure get removed?

Response by Scott Jensen. They are for both. The extent of the required enclosures and the need for heating and lighting are dependent on the Subcontractors schedule for the work. Coordination with the EEF enclosure also impacts the scope of this effort. The scope may be clarified to some extent when the bid packages are finalized.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3849**
Document:	Binder XIV-A RAE	Category: Technical		
Location:	RAE			
Comment:	P-3 S-05100			

164. Under "Shop Painting", delete "Joists and Accessories" and include references to Painting Sections 09800 and 09900 for work limits. Also, refer to Painting Sections 09800 and 09900 for coating thicknesses and surface preparation.

Response by Scott Jensen. We recommend deleting the referenced paragraphs and retaining the shop painting paragraphs on the following page.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3850**
Document:	Binder XIV-A RAE	Category: Other (clarification/wording)		
Location:	RAE			
Comment:	P-5 S-05100			

165. Under "Surveys," should steel fabrication be deferred until the adjustments have been made? This would prevent the need to rework fabricated steel. The text implies that "Corrections" are the subcontractor's responsibility and "Compensating Adjustments" are to be reimbursed, perhaps by change order. Is this the intent? Please clarify.

Response by Scott Jensen. We recommend adding wording to require field verification of the pile support locations prior to fabrication of members that may be impacted by deviations from dimensions as shown on the drawings.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3851**
Document:	Binder XIV-A RAE	Category: Technical		
Location:	RAE			
Comment:	P-5 S-05100			

166. Under "Touch-up Painting," include Section 09800.

Response by Scott Jensen. We recommend adding 09800 to the sentence.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3784**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix A - RAE Loading Calculation			
Comment:	P-B7 General			

109. Do the shapes shown on the detailed component list reflect the final designed and detailed structure?

Response by Scott Jensen. It is assumed that reviewer means sheets A-2 through A-13. There may be some minor differences but these sheets were used as a check on weight and center of gravity output for the 3-D model and there is reasonable agreement between the two.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3779
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix B - Roof/Ceiling Design		
Comment:	P-B5/ General Comment		

105. Number beams that are being analyzed. Place member shapes designations on the calculation sheet (e.g., TS2x2x3/16).

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The referenced calculation sheet is for all the ceiling stiffener (minor) beams. Therefore, a specific beam number is not appropriate. The member shape is indicated by the input property dimensions and the calculation title that indicates a rectangular tube shape.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3783
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix B - Roof/Ceiling Design		
Comment:	Page B31		

108. Provide section properties for the "Top Corner" section.

Response by Scott Jensen. The section properties are included in Appendix J. The Top Corner is two C12x20.7 It consists of the horizontal C12 in the wall panel and the vertical C12 in the ceiling panel.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3780
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design		
Comment:	Gen for computer model/ Elevat. sheets		

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3781 to XIV-C]

Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3781]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3794
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design		
Comment:	P-C-186 Sheet S-10/S-13		

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comment # 3795 to XIV-C]

Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3795]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3785
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design		
Comment:	P-C-6 Sheet S-6		

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3786 to XIV-C]

Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3786]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3790
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design		
Comment:	Page C-114, Sheet S-15		

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3791 to XIV-C]

Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3791]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3787
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design		
Comment:	Page C-67, Sheet S-2		

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3788 to XIV-C]

Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3788]

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3798
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix C - RAE Wall Design & Appendix G - Miscellaneous Calculations		
Comment:	East and West wall Calculations		

119. After reviewing the east and west wall calculations and model input, the reviewer could not determine if the loading from the crane system has been incorporated in to the wall design. If this was not incorporated - it should be. There are nodes in the model apparently for this purpose. Please show that the loads were applied to the structure via a diagram from the computer model and show that the loads were applied to the structure through the "loads applied" section of the input for the computer model.

Response by Scott Jensen. Crane loads were included in the model. We recommend adding appropriate diagrams to Appendix J.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3796
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix E - RAE South Upper Platform (Mezzanine)		
Comment:	Sheet E-5 and E-8		

117. Show dimensions on this plan for verification of design parameters.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The dimensions should be verified by looking at Appendix J and not by dimensions placed on these sheets.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3806
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-2 through F-6/S-31		

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3807 to XIV-C]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3807, 3812, and 3813]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3810
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/ S-31		

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3811 to XIV-C]

Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3811]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3812
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/ S-31		

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3813 to XIV-C]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3813].

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3808
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/S-31		

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3809 to XIV-C]

Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3809]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3797
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix G - Miscellaneous Calculations		
Comment:	General		

118. Provide sketch to show location and intent of design for each grouping of calculations.

Response by Scott Jensen. Many of the calculations are general in nature and sketches for location would not be useful. We recommend clarifying the grouping of the calculations.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3799
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix G - Miscellaneous Calculations		
Comment:	Sheet G-2, G-3 and G-4		

120. Crane runway girders should be designed as continuous members. The authors assumption of the concentrated load doesn't move is not correct - it is stated in the description that the beam analyzed is the Main Crane Runway Beam.

Response by Scott Jensen. We recommend incorporating the proposed change. These sheets were used for preliminary sizing of the girder and as a check for the 3-D model. The referenced assumption was included by mistake and was not really used as a design assumption.

00 2 6 0 7 1 2

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3803**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	Sheet G-23 through G-31			

124. Does the AISC ASD Steel Framed Connection Check/Design spreadsheet check the Web Tearout or Block Shear capacity of the coped members?

Response by Scott Jensen. We recommend verifying that the spreadsheet checks this (or that it has been checked by other means).

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3801**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	Sheet G-30			

122. Where is this member detailed on the Main Crane Girder Runway? There is no reference to this member size on sheet S-18 of the drawing set. Please clarify the size of the beam that the author intends to put on the drawings.

Response by Scott Jensen. We recommend changing the sheet to show a W8x24 member.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3805**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	Sheet G-37			

126. The design criteria states that AISC ASD will be used to design the structure. LRFD was not mentioned.

Response by Scott Jensen. We recommend redoing the calculation per ASD.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3852**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE			
Comment:	Sheet A-4			

167. X-references to platform structural drawings are incorrect.

Response by Scott Jensen. This comment applies to Binder XIV-C RAE. We recommend correcting S-41 and S-42 cross references.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3792
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings		
Comment:	General		

114. Show 'back' of channel - dotted - to make sure the orientation of the channel is correct to the fabricator.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The orientation is shown on section and details. A dotted line at the scale at which most of the drawings are made would not show in the plots as anything other than a thickened line.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment # 3854
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings		
Comment:	Sheet S-1		

169. The cumulative dimensions of the guard rail sections are not compatible with the dimensions of the typical corner railing detail. Suggest changing indicated dimensions to "Field Measure."

Response by Scott Jensen. We recommend correcting the dimensions and adding a note to field verify the shoring dimensions prior to fabrication of the railings.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3793
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings		
Comment:	Sheet S-16 East Wall Panel 3, Framing Ext Elev		

115. How will the HSS2X2X3/16 and HSS4X4X3/16 be connected? Is there an interference problem?

Response by Scott Jensen. Typical connection details are shown on S-43.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3859
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)	
Location:	RAE Drawings		
Comment:	Sheet S-18		

174. The design of the RAE implies that it will be relocated as a complete unit. Is it also required that the panelized assemblies be removable in sections? If so, a revised crane runway bracket should be considered.

Response by Scott Jensen. Removing the panels without cutting of the liner plate or features such as the runway bracket is not required.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3800**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-18 Interior Elevation P			

121. A WT10.5X22 was used in the computer model; however, this section was not detailed on the drawings. It was built up from individual plates. Please clarify.

Response by Scott Jensen. A WT10.5X22 was used to simplify the modeling process and as a design basis. The stainless plate built-up section has equal or better section properties and is therefore okay.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3802**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-18 Interior Elevation P			

123. Where is the calculation for the connections of the 1) W8x24 crane runway girder to the support beam (WT in the calcs or built up plates on the drawings) and 2) built up plates to the column HSS 4X4X3/8? This calculation is critical for the support of the crane.

Response by Scott Jensen. We recommend adding calculations to the Miscellaneous Calculations in Appendix G as referenced in comment 3801.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3789**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-2			

112. Does channel for mezzanine support connect to the cross braces?

Response by Scott Jensen. No. We recommend clarifying the detail for connection of the channel and adding a detail, probably on S-40, with a reference to S-32.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3855**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings			
Comment:	Sheet S-2			

170. The south and east elevations include more bays of vertical bracing at upper level(s) than at the base. Please explain.

Response by Scott Jensen. Lower locations had areas of interference that did not allow bracing at to be placed there.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3782**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-21			
Comment:				

107. Section J is cut in the wrong place. It shows the HSS 2X2X3/16, which does not show up in the view of the section cut. Move Section J to the correct location on the drawing so that it reflects what elements are located where the section is cut.

Response by Scott Jensen. We recommend moving section J to a correct location.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3860**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-24			
Comment:				

175. Are washers and nuts required to compress the seal at Section T?

Response by Scott Jensen. At least a nut is required. We recommend adding a callout for the nut and possibly a washer.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3862**
Document:	Binder XIV-C RAE	Category: Unspecified		
Location:	RAE Drawings Sheet S-31			
Comment:				

177. In enlarged plan, north beam callout W21 x 44 conflicts with framing plan (W16 x 36).

Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3861].

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3863**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-31			
Comment:				

178. Review Weld Symbols vs. Joint Geometry; e.g., in Detail 20, A 4 in TS frames into a 4-in. flange. An all-around fillet weld is not appropriate.

Response by Scott Jensen. We recommend changing the weld symbol.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	3861
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-31			
Comment:				

176. In Section D, south beam callout W21 x 44 conflicts with framing plan Sheet S-3 (W16 x 36).

Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3862].

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3865
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-32			
Comment:				

180. Is the floor plate to have a diamond pattern for safety?

Response by Scott Jensen. No. It will have paint with a grit added (See Binder XIV-A, RAE Spec 233, Section 09900).

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	3864
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-32			
Comment:				

179. See previous comment on Sheets S-6 through S-17 concerning vertical bracing connection geometry. [Also see comment # 3858]

Response by Scott Jensen. We recommend evaluating a change. The joint geometry is not as important here since the floor plate will likely provide more strength and lateral stiffness than the diagonal members after the plate is in place.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3804
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-38 Section AM			
Comment:				

125. How thick is the connection plate? Is the plate on one side of the connection or two?

Response by Scott Jensen. We recommend adding the thickness of the connection plate to the referenced detail.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3856
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings			
Comment:	Sheet S-4			

171. Callout for 3/8-inch floor plate points to open floor area on south side of pit.. Move arrow line to plated floor area.

Response by Scott Jensen. We recommend moving the callout arrow.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3857
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings			
Comment:	Sheet S-5			

172. Is a predetermined amount of compression required to create a seal with the sponge rubber? Is field welding prohibited in the connections immediately above the seal (to prevent melting)? Whereas fit-up tolerances will be very difficult here, these requirements should be clarified.

Response by Scott Jensen. The seal was designed to work with compression provided by the weight of the RAE. We recommend changing the detail to prevent melting of the seal.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3866
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheets S-37 Through S-41			

181. See previous comment (Sheet A-1) concerning connection design responsibility. If the connections shown on these sheets are considered to be fully detailed, the following comments apply: A. What is the connection bolt type - SC, N, or X? B. If these are bearing bolts (Type N or X), is tensioning required? C. The AISC Standard detail for the outstanding legs of a "Flexible", one-sided connection is a 2-sided weld with a top return. (AISC P.4-84). [Also see UCN# 385.3]

Response by Scott Jensen. We recommend incorporating the proposed change. The bolt tensioning requirements should be clarified. They are currently included in the specification. However, a recent revision to the bolt installation standard referenced in the specification requires that additional information be provided on the drawings. We recommend modifying the weld symbol as necessary for the two options shown. (See response to UCN 3866)

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	3858
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheets S-6 - S-17			

173. The working points for the vertical bracing, and the resulting joint configurations, are shown inconsistently. Refer to Sheet S-43 for the typical joint configuration.

Response by Scott Jensen. Agree that the views should look more like S-43 configuration. We recommend evaluating the drawings will be considered and changing them as necessary.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3781
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix C - Drawings		
Comment:	General for computer model/ Elevat. sheets		

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3780 to XIV-B]

Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3780]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3795
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix C - Drawings		
Comment:	P-C-186 Sheet S-10/S-13		

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comme. t # 3794 to XIV-B]

Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3794]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3786
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix C - Drawings		
Comment:	P-C-6 Sheet S-6		

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3785 to XIV-B]

Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3785]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3791
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix C - Drawings		
Comment:	Page C-114, Sheet S-15		

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3790 to XIV-B]

Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3790]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3788
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix C - Drawings		
Comment:	Page C-67, Sheet S-2		

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3787 to XIV-B]

Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3787]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3807
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-2 through F-6/S-31		

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3806 to XIV-B]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3812, and 3813]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3811
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/ S-31		

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3810 to XIV-B]

Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3810]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3813
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/ S-31		

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3812 to XIV-B]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3812.]

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3809
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings		
Comment:	Sheet F-4 and F-7/S-31		

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3808 to XIV-B]

Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3808]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3818
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings		
Comment:	Dwg MH-100		

133. Call out member size for beam at el. 56.00 on long face elevation view, top plan and bottom plan.

Response by Scott Jensen. We recommend clarifying the callout of member sizes on the drawing.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3824
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings		
Comment:	General Comment-Crane Drawing MH-140		

139. Provide connection details for connecting the bridge crane beams to the structure.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3814
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF		
Comment:	Dwg MH-101 (Sheet 1 of 4)/Page 23		

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See UCN # 3815 to XVI-B]

Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3816
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF(A		
Comment:	Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note		

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3817 to XVI-B]

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3819
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	Crane Load Sheet		

134. Were the lateral loads from the crane calculations applied to the frame? Were the correct loads (vertically) applied to the structure?

Response by Scott Jensen. The answer to both questions is yes. See model input data in Appendix B of Binder XVI-B.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3815
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC Drawings/MHC/ SHC Structural Calculations EDF		
Comment:	Dwg MH-101 (Sheet 1 of 4)/Page 23		

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See Unique Comment # 3814 to XVI-A]

Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3817
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF(A		
Comment:	Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note		

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3816 to XVI-A.]

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3820
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC/SHC Structural Calculations EDF (Appendix B)			
Comment:	General Comment			

135. Provide calculations for the welds shown on the drawings. Are the welds shown adequate? Additional weld symbols are needed to show how the structure is to be connected.

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3823
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC/SHC Structural Calculations EDF (Appendix B)			
Comment:	General Comment-Steel Frame Calculations			

138. Provide connection calculations, especially for the crane attachment to the structure.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3822
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC/SHC Structural Calculations EDF (Appendix B)			
Comment:	General Comment-Steel Frame Calculations			

137. What is the difference between the two Steel Design Reports that are shown in this EDF? In the first report some of the members fail, in the second report everything is OK. Please clarify.

Response by Scott Jensen. One report looks at governing load combinations that include earthquake loads. The other report looks at governing load combinations that do not include earthquake loads. As indicated in page 7 of the EDF the failure criteria is demand to capacity ratios less than 1.0 for load combinations that do not include earthquake loads and 1.33 for load combinations that do include earthquake loads. None of the members fail based on this failure criteria. For this reason we recommend not pursuing the action proposed in the comment.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3821
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	General Comment-Steel Plate Calculations		

136. The steel plate calculations become inaccurate when the deflections are greater than one-half of the thickness of the plate. The designer should use a thicker plate and revise the calculations.

Response by Scott Jensen. The inaccuracy of these results is not significant to the design. The stresses could be off by a factor of about 3 and still have a safe design. For this reason we recommend not changing the document.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3825
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix C)		
Comment:	General Comment-Steel Frame Calculations		

140. Designer should not detail overstressed members. Refer to page 32 of "Steel Design Report Checking SHC to ASD Code".

Response by Scott Jensen. The members are not overstressed. See the SHC design summary on page 8 of the EDF. The demand to capacity ratio of members can be as high as 1.33 for load combinations that include earthquake loads.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3826
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix C)		
Comment:	General Comment-Steel Frame Calculations		

141. Provide connection calculations.

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3853
Document:	Binder XVI-C RAE	Category: Technical	
Location:	RAE		
Comment:	Sheet A-1		

168. Note 4 implies that structural steel connection designs and details will be developed by the Subcontractor as a performance item. If this is the intent, the performance design requirements and submittal requirements should be clearly specified in Section 05100. Sheets S-37 through S-42 show "Typical Connection Details." Are these considered to be fully detailed, or guidelines? The connection design responsibilities require clarification. [See also UCN # 3866.]

Response by Scott Jensen. We recommend deleting note 4 from A-1. (See the response to comment 3866.)

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3869**
Document:	Binder XXI Shoring	Category: Technical		
Location:	EDF-ER-101, Stage II Title I OU 7-10 Shoring and Pile Foundation Design Calculations			
Comment:	General			

184. Page 1 indicates that Preliminary RAE loads have been used for pile design. On Page 6, an assumption has been made that the RAE loads will be uniformly distributed to the support piles. The calculated pile reaction of 45.5 KIP is close to the 25-ton pile working load. Please utilize final RAE support reactions (from Binder XIV-B) to confirm pile capacity.

Response by Scott Jensen. I do not understand where your 25-ton pile working load comes from. The allowable axial load on the H-piles as indicated in the calcs is about 95 kips and is based on a low compressive strength for the rock. The RAE support axial reactions are all well below the 95 kips.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3867**
Document:	Binder XXI Shoring	Category: Other (clarification/wording)		
Location:	Shoring			
Comment:	P-3 S-02456			

182. Under "Environmental Requirements", no conditions are listed.

Response by Scott Jensen. We recommend deleting this heading from the specification

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3868**
Document:	Binder XXI Shoring	Category: Technical		
Location:	Shoring			
Comment:	P-3 S-02456			

183. General: No driving tolerances are shown in specifications. (cut-off tolerances only are shown on drawings).

Response by Scott Jensen. Tolerances for the piles' horizontal positions are shown on the shoring drawing by pit dimensions. No driving tolerances for deviation from vertical orientation are provided because pulling and reinstalling a contaminated pile is not practical.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3883**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	Drawings			
Comment:	Sheet A-2			

198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.

Response by Dave Stephens. It is recommended that masonry control joints be deleted.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3884
Document: Binder XXII Utility Building Category: Other (clarification/wording)
Location: Drawings
Sheet A-3
Comment:

199. Consider coordinating vertical spacing of bond beams and lintel beams. With so many bond beams, what is the purpose of joint reinforcement?

Response by Dave Stephens. It is recommended to delete the joint reinforcement from the specification and use only bond beams.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3885
Document: Binder XXII Utility Building Category: Other (clarification/wording)
Location: Drawings
Sheet A-5
Comment:

200. Are all cells grouted, or only the reinforced cells?

Response by Dave Stephens. Only cells that have reinforcement are to be grouted. It is recommended to remove hatching from cells that are not reinforced.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3886
Document: Binder XXII Utility Building Category: Other (clarification/wording)
Location: Drawings
Sheet A-5
Comment:

201. Coordinate Detail 1 angle size with structural drawings

Response by Dave Stephens. It is recommended that angle sizes be made to agree between drawings. [See also UCN 3895]

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # 3887
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet A-5
Comment:

202. See previous comment on Sheet A-2 regarding masonry control joints. [198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.]

Response by Dave Stephens. It is recommended that masonry control joints be deleted.

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EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3888**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings				
Comment:	Sheet S-1				

203. Why does CMU wall dowel spacing not match CMU wall reinforcement spacing?

Response by Dave Stephens. It is recommended that note on Section B be made to read as it does on Section A. This note states that dowel reinforcing is to be continuous at 32" o.c. into masonry wall which matches wall reinforcement. Grade beam reinforcement is to be 16" o.c. It is also recommended to make all CMU wall reinforcement the same size (#4 bar).

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3889**
Document:	Binder XXII Utility Building		Category: Other (clarification/wording)		
Location:	Drawings				
Comment:	Sheet S-1				

204. Is slab-on-grade reinforcement intended to be bottom or mid-depth?

Response by Dave Stephens. Reinforcement is intended to be per ACI 318 provisions as called out in the specification (3 inches clear from bottom of slab for slabs cast against soil).

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3891**
Document:	Binder XXII Utility Building		Category: Other (clarification/wording)		
Location:	Drawings				
Comment:	Sheet S-1				

206. Why do #4 dowels cross slab/wall isolation joints?

Response by Dave Stephens. It is recommended to remove #4 dowels so that slab/wall isolation joints function as intended.

EPA	Reviewer: EPA G. Garbacik		Significant? Yes	Comment #	**3890**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings				
Comment:	Sheet S-1				

205. Generator pad vertical reinforcement legs have insufficient lap.

Response by Dave Stephens. It is recommended that the lap length be corrected on the drawing.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3895
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

210. Note 3 conflicts with Section B (length of bearing).

Response by Dave Stephens. It is recommended that the detail be corrected when the coordination between drawings for the angle sizes is carried out as indicated in the response to comment 3886. [3886 response: It is recommended that angle sizes be made to agree between drawings.]

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3896
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

211. Under Note 4, the joist designer requires the net uplift load.

Response by Dave Stephens. It is recommended that Note 4 be changed to give net uplift load.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3892
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

207. K-Joists are simple span. Therefore, the 8 joists south of the Generator Room have shorter spans than the remaining 4 joists. Why are all joists 16K6?

Response by Dave Stephens. Simplicity of uniform ordering and uniform size outweighs any minor cost savings by reducing joist depth for so few joists.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3893
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

208. Add note(s) that joists require special bearing seats because slope is greater than 1/4:12.

Response by Dave Stephens. It is recommended that a note be added to require special bearing seats for joists.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # 3894
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

209. Side lap puddle welds in 20-gage material are very difficult. Consider mechanical fastenings.

Response by Dave Stephens. It is recommended that mechanical fastenings be considered as a replacement for the welding.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3882
Document:	Binder XXII Utility Building	Category: Unspecified		
Location:	EDF-1185, INEEL/EXT-99-01194, Stage II, WMF-670 Utility Building Structural Calculations			
Comment:	Not indicated			

197. Provide calculation for support of joist reaction of 5.02 KIP if joist is aligned with 5/8_ anchor bolt (i.e., entire load carried by one anchor bolt). Consider effects of eccentricity (shear plus tension) on anchor bolt design.

Response by Dave Stephens. It is recommended that a review of the calculations be made and provide calculation for the combined loading of tension and shear on the anchor bolt.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3870
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	P-1 S-01005			

185. Under "Section Includes", clarify what is provided (i.e., furnished and installed) vs. what, if anything, is installed only.

Response by Dave Stephens. It is recommended to rework the "Section Includes" paragraph to ensure that there is no conflict with the previous paragraph which states that the subcontractor shall furnish and install all material, equipment, and supplies.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3876
Document:	Binder XXII Utility Building	Category: Quality		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	P-2 S-05100			

191. Under "Quality Control", it is recommended that steel joists be provided by an SJI member company.

Response by Dave Stephens. It is recommended that the requirement for an SJI member company to provide the joists be added to the specification under Quality Control.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3878
Document:	Binder XXII Utility Building	Category: Quality		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	P-2 S-05310			

193. Under "Quality Control", it is recommended that roof deck be provided by a SDI member company

Response by Dave Stephens. It is recommended that the requirement for an SDI member company to provide the deck be added to the specification under Quality Control.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3879
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310			
Comment:				

194. Under "Materials", no galvanizing requirements (G-60 or G-90) are provided. Also, the material specification should be ASTM A611 GR C, D or E, or ASTM A653 Structural Quality Grade 33 or higher. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section.

Response by Dave Stephens. We recommend that galvanizing requirements (G-90) be added to the specification. A vapor barrier is of no benefit in this geographic area.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	3877
Document:	Binder XXII Utility Building	Category: Environmental		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310			
Comment:				

192. Under "Submittals", why are no shop drawings required? How is compliance going to be evaluated?

Response by Dave Stephens. It is recommended that shop drawings be added to the Submittals section.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3881
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310			
Comment:				

196. Under "Attachments", coordinate the deck fastening pattern with pattern shown on the Drawings.

Response by Dave Stephens. We recommend coordinating the deck fastening pattern between specification and drawing.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3880
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310			
Comment:				

195. Under "Roof Deck", coordinate deck profile with the information shown on the Drawings.

Response by Dave Stephens. We recommend that the deck profile information be coordinated between specification and drawings.

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EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3874**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300			
Comment:				

189. Under "Curing Compound" please be aware that all interior floor surfaces are epoxy-coated. Moist curing should be specified for these surfaces.

Response by Dave Stephens. It is recommended that the spec 03300 have language added to the curing section which specifies that concrete floors to receive epoxy coating must be moist cured.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3875**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300			
Comment:				

190. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section

Response by Dave Stephens. Vapor barriers are of little value for slabs-on-grade in this part of Idaho.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3872**
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062			
Comment:				

187. What local, state, and federal regulations and standards are applicable to this work?

Response by Dave Stephens. There will be no significant demolition. The removal of rubbish and debris will be standard construction debris. There are no known local, state, or federal regulations that would apply to this kind of removal and disposal.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3873**
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062			
Comment:				

188. Why is a Subcontractor's demolition plan not required as a submittal?

Response by Dave Stephens. This is all new construction. We recommend that "demolition" be removed from the list of work included in the specification.

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Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3871**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062			
Comment:				

186. No Demolition Drawings are included. What work is included under this Section?

Response by Dave Stephens. It is recommended that demolition be removed from the list of work included.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3837**
Document:	Binder XXIII-A 100% Final Storage Bldg	Category: Technical		
Location:	Part 1 Drawings ~~Dwg511145 A-2~~			
Comment:				

152. Are there girts or studs in walls of doorways as shown in detail 1? Clearly define what is provided by Subcontractor vs. Metal Building System.

Response by Dave Stephens. It is recommended that the part of the callout that mentions girts be clarified to reflect connection to the metal building girt near the top of the awning. Typically the lowest girt occurs within 8 ft of the finished floor.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3838**
Document:	Binder XXIII-A 100% Fin .l Storage Bldg	Category: Technical		
Location:	Part 1 Drawings ~~Dwg511145S-6~~			
Comment:				

153. What Live Load was the Mezzanine designed for? This information is not stated on Dwg T-2 (location of the General Notes) or Dwg. S-6 (location of Mezzanine plan). Is deck able to withstand clear span (shored or unshored) in single span (wet concrete) condition? Calculations should be provided. Provide for large pipe opening (additional reinforcement - if required).

Response by Dave Stephens. It is recommended that a note be added that specifies the size and type of composite concrete deck, shoring conditions, and lists the minimum capacity.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3841**
Document:	Binder XXIII-A 100% Final Storage Bldg	Category: Technical		
Location:	Part 1 Drawings ~~Dwg511151 S-3~~			
Comment:				

156. Section B - Will control joint have sealant in the joint?

Response by Dave Stephens. Yes. The concrete specification specifies this.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3839
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	Drawings ~~Dwg511154 S-6~~		

Comment:

154. L8x8x1/2 Slab closure angle will protrude 1" above the top of slab - Is this the intent? Sections P, R and T show the angle top flush with the top of the slab - please clarify.

Response by Dave Stephens. Angle will protrude 1/2" above top of slab. It is recommended that the drawing be revised to reflect this.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3840
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	Drawings ~~Dwg511154 S-6~~		

Comment:

155. Section U - What size is bearing plate? Provide bond beam detail.

Response by Dave Stephens. The size of the bearing plate will be determined as stated in note 2. It is recommended that an indication as to where bond beams are to be located be added to the drawing. Details are included in the specification.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3827
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-03300-2 of 15 Lines 1 through 22

142. Additional concrete references should be noted to provide adequate quality assurance: ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete -- ACI 308 Standard Practice for Curing Concrete -- ASTM C94 Specification for Ready Mixed Concrete -- ASTM C173 Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method -- ASTM C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method -- ASTM D1751 Specifications for Preformed Expansion Joint Filler for Concrete Paving and Structural -- Construction -- ASTM D1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete -- Paving and Structural Construction

Response by Dave Stephens. At least two of these references are already invoked. It is recommended that others be added as applicable.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3828**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-03300-4 of 15 line ~21

143. Add to spec - Store admixtures in a manner to prevent contamination, evaporation, moisture penetration or damage. Do not use products, which have been stored longer than 6 months.

Response by Dave Stephens. It is recommended that this be added to a general "Delivery, Storage, and Handling" section added after "Quality Control" section.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3829**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-04220-1of 8 line 24

144. Specification should list ACI 530.1 Specification for Masonry Structures as masonry code.

Response by Dave Stephens. It is recommended that ACI 530.1 be listed as stated in this comment.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3830**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-04220-2 of 8 line 18

145. ACI 531 does not exist. Should it be ACI530.1?

Response by Dave Stephens. It is recommended that this typo be corrected.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3831**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-05060-2 of 8 line 42

146. Under Quality Control, Codes and Standards Regulatory Requirements, should the AWS D1.1 Structural Welding Code and INEEL Welding Manual be cited?

Response by Dave Stephens. It is recommended that the reference currently under the Quality Control Section be removed. This reference and the two cited in the comment are already invoked on page 05060-1.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3832
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-05060-5 of 8 line 7

147. Under PART 2 PRODUCTS, what type of welding electrode is to be used? Low hydrogen electrodes for field welding?

Response by Dave Stephens. It is recommended that types of acceptable welding electrodes be added.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3833
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-05400-2 of 3 lines 7 - 10

148. The only metal studs that are noted on the drawings are 6" metal studs at the Electrical/Fire Riser Rooms. Please correct the callout in the drawings or specs.

Response by Dave Stephens. It is recommended that the specification be corrected to reflect 6 inch studs.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3836
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-13120- General

151. Piping loads should be transmitted to metal building manufacturer. Please clearly define what is provided under this Section. Under "Section Includes", several items are listed only as "installation of ..." Please clarify the items that are to be furnished and furnished and installed. Are these items listed in Section 13120? It is not clear from the text who will supply these items.

Response by Dave Stephens. Piping loads are covered under collateral loading specification on page 13120-5. It is recommended that the word "installation of" be removed from the "Section Includes" list. This should be sufficient clarification since the Summary first paragraph states that the subcontractor shall both furnish and install a complete metal building system as specified by the specs and drawings.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3835
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-13120-5 of 10 line 31

150. Lateral Deflection should be changed to lateral deflection of building frames or drift.

Response by Dave Stephens. It is recommended that "Lateral Deflection" be changed to "Lateral deflection of building frames (Story drift)".

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3834
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-13120-5 of 10 lines 26 and 27

149. The 18,000 lb. Per column loading does not concur with Note 4 on Sheet S-6. Consider structurally isolating the rigid mezzanine from the flexible metal building to avoid impacting the response to the metal building under lateral loading.

Response by Dave Stephens. It is recommend that the note on S-6 and the statement in the specification be made to agree. Impact to metal building from rigid mezzanine has been previously considered and shown to be negligible.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3842
Document:	Binder XXIII-B 100% Final Storage Facility Part 1	Category: Technical	
Location:	EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design 1997 UB-S Seismic Equations Sprdsht		

Comment:

157. Seismic dead load is not calculated. Also other possible contributors to the seismic dead load need to be checked. See UBC-97.

Response by Dave Stephens. Recommend showing in greater detail how dead load is calculated for seismic calculations. Also, it is recommended to review other possible contributors to seismic dead load.

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Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3843**
Document:	Binder XXIII-B 100% Final Storage Facility Part 1	Category: Technical		
Location:	EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design Summary of 'On Grade Floor Slab" Design Calcs.			
Comment:				

158. What is load on the slab that the allowable is compared to? A calculation should be preformed to show the anticipated loadings on the floor so that the allowable values can be verified as acceptable.

Response by Dave Stephens. It is recommended to state what the maximum expected design load is so this may be compared to allowable.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3844**
Document:	Binder XXIII-B 100% Final Storage Facility Part 1	Category: Technical		
Location:	EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design Summary of 'On Grade Floor Slab" Design Calcs.			
Comment:				

159. "Slab on Grade Reinforcement Calculations" According to ACI 318 A3.2 the allowable tensile stress reinforcement is 24,000 psi not 30,000 psi.

Response by Dave Stephens. It is recommended that the allowable stress be changed to 24 ksi.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3902**
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10789 Waste Management Plan Page 4-10, Section 4.2.2.1			
Comment:				

88. For operations wastes, under the subheading "PPE", the text states that personnel in the soil handling center will wear launderable work coveralls; where will this clothing be laundered, and how will wastewater from this laundry be managed?

Response by Brent Burton. We recommend not making a change to the document. The PPE is sent to an approved offsite vendor under an INEEL subcontract. This activity is not a project specific task and generates no waste streams under control of the project.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3903**
Document:	Binder V Env/Saf/Q Docs	Category: Industrial Hygiene		
Location:	DOE/ID-10789 Waste Management Plan Page 4-12, Section 4.2.2.2			
Comment:				

89. Please address this same issue regarding launderable PPE for maintenance wastes under the subheading PPE, with regard to the location of the laundry and how wastewater from it will be handled.

Response by Brent Burton. We recommend not making a change to the document. The PPE is sent to an approved, offsite vendor under an INEEL subcontract. This activity is not a project specific task and generates no waste streams under control of the project.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3901
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10789 Waste Management Plan Page 4-8, Section 4.2.1.2		
Comment:			

87. Please explain how this project will ensure that listed/characteristic soils will be properly identified and handled, when not all drums potentially containing these listed or characteristic wastes will be sampled and analyzed. Even for underburden soils, it is not clear how the stated analyses will identify listed or characteristic wastes in each drum.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3899
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10789 Waste Management Plan Page 4-8, Section 4.2.1.2		
Comment:			

85. Text on this page states that it is not automatically assumed that listed or characteristic waste codes apply to non-stained interstitial and underburden soils. Per this text, listed/characteristic waste codes will only apply if analysis shows that specific codes do apply.

Response by Brent Burton. We recommend that the language in the last sentence of Section 4.2.1.2 be revised to clarify that a hazardous waste determination or evaluation will be performed and that the word "analysis" be deleted so as to not imply that analytical data drives the HWD (i.e., for listed wastes). As written, the waste management plan presents an approach that does not characterize non-stained soils as listed or characteristic wastes. The intent of the plan is to make this determination during Stage II operations based on the data collected and observations of the digface conditions (e.g., origin of drums relative to other drums/potential for cross-contamination etc.). For listed codes, the HWD will primarily be based on the observational information vs. analytical data as the determination is process knowledge driven (i.e., did the soils contact a listed waste source?).

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Response Report - sorted by Org/Reviewer

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3900
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10789 Waste Management Plan Page 4-8, Section 4.2.1.2		
Comment:			

86. In the FSP (Binder 2, Table 4-1, page 4-3), it appears that not all drums of non-stained soils will be sampled for analysis. Table 4-1 in the FSP shows that no samples of drummed, non-stained, less than 10 nCi/gm, interstitial soils will be sampled for VOC, SVOC, PCBs, CLP metals, or any other analysis. For drummed underburden soils less than 10 nCi/gm, only 40 samples will be collected for VOCs, SVOCs, PCBs, and CLP metals. According to the Waste Management Plan (p 4-8). The total estimated volume of interstitial and underburden soils is expected to total between 619 and 747 drums.

Response by Beth McIlwain. We recommend adding clarification of proposed sampling of non-stained, less than or equal to 10 nCi/g soil. (FSP presents statistical estimation of true mean concentration of VOC, SVOC, PCB, and metals to confirm contaminants are not at levels of concern. Underburden and overburden are mentioned specifically).

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3904
Document:	Binder V Env/Saf/Q Docs	Category: Industrial Safety	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan Page 3-15, Section 3.2.7		
Comment:			

90. Text states that drums whose materials show indications of incompatibility (i.e., generation of gas, fumes, or heat) during the retrieval and handling processes will be placed in short term isolated storage. Since this part of the text discusses the CERCLA storage building, it appears that this will also be the location of this short term storage; however, this is not clear. Suggest that these drums remain within primary confinement to limit any releases that could occur as a result of incompatibility, and to facilitate drum opening and re-segregating incompatible items.

Response by Brent Burton. We recommend that the text of the Pollution Prevention/Waste Minimization Plan, EDF-ER-137, Chemical Compatibility Assessment Report and the Waste Management Plan be clarified as follows: (1) Incompatible or unknown wastes, at a minimum, will be placed in isolated storage pending final characterization; (2) pending characterization the preferred storage location is in the RAE subject to space limitations; and (3) If RAE storage space is not available, storage in the EEF is the next preferred location. A special case handling procedure would be developed to address this management scenario. Separated storage in the CERCLA storage facility is also viewed as compliant/viable but is not the preferred option.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3905
Document:	Binder V Env/Saf/Q Docs	Category: Other (clarification/wording)	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan Page 3-15, Section 3.2.7.1		
Comment:			

91. Text lists criteria for return to pit (RTP) wastes; the way this is phrased suggests that wastes must be less than or equal to 10 nCi/gm, must meet the threshold criteria for residual risk for COC; and must contain PCBs above 50 ppm. This should be rephrased; one of the criteria for RTP wastes is that PCB concentrations be less than 50 ppm (not above 50 ppm).

Response by Brent Burton. We recommend that the referenced text be changed as requested such that it is clear that materials would have to be less than 50 ppm when excavated to qualify for return to pit.

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EPA	Reviewer: EPA Kashdan_Flannery		Significant? No	Comment #	3906
Document:	Binder V Env/Saf/Q Docs		Category: Rad Safety		
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation				
Comment:	Page 8, Section 5				

92. Section 5 is Discussion of Contingencies. Please include a contingency for the potential for buildup of sufficient mass for criticality in the soil vacuuming system, including the soil hopper, soil hopper drum, and the piping and hoses that will be part of this system.

Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, we recommend revising Phase I O&M Plan Procedure EOP-006 Sections 4.5 and 4.6 to include limiting clogging and build ups in the SHS for criticality control, and to address the potential role of the digface monitor in criticality control. [This is a consolidated response to comments 3129 (Binder V) and 3906 (Binder V).]

EPA	Reviewer: EPA Kashdan_Flannery		Significant? Yes	Comment #	3897
Document:	Binder V Env/Saf/Q Docs		Category: Chemistry/Radiochemistry (SMO)		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation				
Comment:	Page 9 (no sections listed)				

83. TABLE 2, ON page 9, shows the expected radioactivity IN the Stage II waste zone BY waste type. However, the total amount OF plutonium(Pu)listed per drum does NOT correspond WITH the total amount OF Pu listed per drum FOR each waste type AS listed IN Binder 5, Preliminary Criticality Safety Evaluation. Discrepancies are listed below :

Table 2, Air Emissions Evaluation:
741 sludge: 4.3 grams Pu/drum
Graphite: 9.9 grams Pu/drum
Non-combustible 3.6 grams Pu/drum
744 sludge: 1 gram Pu/drum
Combustibles: 0.5 grams Pu/drum Table 1, Preliminary Criticality Safety Evaluation741 sludge: 157 grams Pu/drum
Graphite: 61 grams/drum
Non-combustible: 129 grams Pu/drum
744 sludge: 22 grams Pu/drum
Combustibles 45 grams Pu/drum

In addition, Table 1 of the Preliminary Criticality Safety Evaluation lists 743 sludge (16 grams Pu/drum), 745 sludge (0.09 grams Pu/drum), 742 sludge (8.9 grams Pu/drum), and Empty Drums (3.0 grams Pu/drum). These waste types are apparently not included in the Air Emission Evaluation. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Org/Reviewer

EPA	Reviewer: EPA Kashdan_Flannery	Significant? Yes	Comment # 3898
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)	
Location:	INEEL/EXT-98-00848 Air Emission Evaluation		
Comment:	Page 9 (no sections listed)		

84. The Air Emission Evaluation text (P. 8) states that the drum loading information used was obtained from Thomas (1999 a, b) to determine a worst-case activity inventory. Suggest that information in the PSA, dated January 2000, be used to provide information for the air emission evaluation. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3907
Document:	Binder VI Misc Docs	Category: Other (clarification/wording)	
Location:	PLN-632, OU 7-10 SIA Project Physical Security Plan, INEEL Company Manual 11		
Comment:	Page 7 and 8, Section 6.5.7		

93. This section shows that the storage building will have a primary confinement structure for securing objects (drums or other) pending identification. "Securing" includes controlled access via a specific type of lock, and preventing visual access. Storage building diagrams in other binders do not show a controlled access area. Binder 11C does describe this briefly in SDD-23 (Storage System), and states in Section 4.1.3.1.8, Page 26, that a controlled access section will not be constructed unless classified materials are discovered, at which time a simple barrier, such as a chain-link fence, will be erected. A chain link fence alone will not preve. t visual access; hence, the requirements of the Physical Security Plan do not appear to have been entirely communicated to the Storage System design team. An alternate barrier to prevent visual access, or an addition to a chain-link fence, will be needed to fully meet the physical security needs.

Response by Patricia Jurbala. Recommend adding a drawing to the Specification that shows a designated storage area that will be constructed, if necessary. Note: visual access is not a problem because all materials will be concealed inside of drums. No other document changes are necessary.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Org/Reviewer

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3909**
Document:	Binder X ICDs	Category: Industrial Safety		
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems			
Comment:	Page 15, Section 3.4.2.2			

95. According to WMF-671/WMF-673, Figure S-12 (Binder 12C), there is no apparent plan to secure the carbon steel plates so that they are immobile. These plates could shift relative to each other and produce gaps, and drum handler movement would be difficult or impossible across these gaps. It is suggested that the project include a plan to affix these plates to the underlying surface, or each other, so that there is no movement between these plates and subsequent gaps created. It is also unclear whether these plates will sit on, or be directly in contact with, bare earth. If so, these plates may corrode. Have alternate materials for this mobile drum handler surface been considered, such as concrete, wood, or a hard, durable plastic mat? Alternatively, the steel plates could be set on a surface that will not expose them to moisture.

Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are affixed to the underlying surface by the vertical leg of angle which projects vertically into the existing soil, thus holding it in place. (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections). The carbon steel plates sit directly on polyethylene flooring which covers the soil. Polyethylene flooring was selected over several other materials (e.g., coated fabrics, polyurea spray elastomer, hard rubber) based on its ability to handle foot and forklift traffic, and cost. This design selection is documented in EDF-ER-159. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for information on floor plates. General corrosion is not a concern since plates sit directly on stabilizing polyethylene flooring. Incidental corrosion near the stabilizing angle would be minimal, and thus, not a significant design iss e.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3910**
Document:	Binder X ICDs	Category: Industrial Safety		
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems			
Comment:	Page 15, Section 3.4.2.2			

96. One of the drawings referenced in IAG-634 (WMF 671 Sheet MH-103) could not be located; the other drawing (WMF-671 Sheet MH-112) was located, but did not clearly show any features that would prevent shifting or movement between plates. Drawings should show the proposed design for these plates more clearly.

Response by Kirt Jamison. The referenced sheets, MH-103 and MH-112, where submitted as part of a 90% design submittal on April 20, 2000. Neither drawing provides sufficient information regarding the floor plates. We recommend modifying the text in IAG-63 to identify Binder XII-C - Environmental Enclosure Facility (EEF) Drawings, Sheet S-12 EEF Drum Handler Floor Plate Plan & Sections as the appropriate source for this information. Binder XII was submitted as part of the June 15, 2000 RD/RA Work Package. This drawing shows the vertical leg of angle, which is the principal design feature for restricting shifting or movement between plates.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3908
Document:	Binder X ICDs	Category: Industrial Safety	
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 15, Section 3.4.2.2		

94. This section describes EEF operating surfaces, including carbon steel plates that will be the operating surface for the mobile drum handler. One item specifically mentioned about these plates is that they shall be sufficiently level to prevent either a full or empty mobile drum handler from rolling or continuing motion on its own. Because these plates may settle and/or shift as work progresses on them, a level surface may change to an angled surface over time. A suggested option for this issue would be to build the mobile drum handler with a brake that must be unlocked before the drum handler could be moved, which would prevent unwanted motion.

Response by Kirt Jamison. The carbon steel plates used for the operating surface of the mobile drum handler are stabilized to prevent horizontal and vertical shifting due to drum handler operation or other use (See sheet S-12 EEF Drum Handler Floor Plate Plan & Sections; see also response to Unique Comment 3909). The suggested option of adding a brake to the mobile drum handler has already been included as part of the procurement specification for the electric forklift for the EEF. "The forklift shall be equipped with service brakes and an independent emergency brake." (See section 3.4.8, SPC-246) We recommend adding text to IAG-63 to identify that the forklift/drum handler has brakes and recommend that operating procedures reflect their use.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3911
Document:	Binder X ICDs	Category: Other (clarification/wording)	
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 16, Section 3.4.3.3		

97. This section discusses the negative pressure differential between the EEF and the Material Handling Cell (MHC) glovebox. The text states that "The negative pressure differential shall be at least 0.6 inches of water equivalent, as well as a minimum of 10 air changes per hour (ach), under normal operating conditions." This is ambiguous; please clarify whether it is the EEF or the MHC glovebox that will have the minimum of 10 ach.

Response by Kirt Jamison. The "...minimum of 10 air changes per hour (ach), under normal operating conditions." applies to the Material Handling Cell (MHC). We recommend modifying IAG-63 text to more clearly state that the MHC glovebox will have a minimum of 10 air changes per hour.

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EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3912
Document:	Binder X ICDs	Category: Other (clarification/wording)	
Location:	IAG-63, Stage II, ICD between the EEF and all other Systems		
Comment:	Page 16, Section 3.4.4.2		

98. This section discusses lighting. The text states that the MHC glovebox lighting will be provided on the outside of the gloveboxes. Please clarify whether these lights will shine on the gloveboxes from above, rather than from the sides; light from the sides could cause glare and hinder the view of the glovebox interior. Placement of lighting is not clear from either the text or the referenced figure (WMF-671, OU 7-10 SIA S-II, sheet E-17).

Response by Kirt Jamison. Lighting in the MHC glovebox will be provided by overhead lights. Six overhead lights are called out in section 3.4.4.2 and are shown in drawing E-17 RAE/MHC Light Plan. We recommend clarifying the text in the IAG to more clearly identify MHC lighting as being overhead lighting and recommend referencing drawing E-17 (in place of E-16), which more clearly shows the location of this lighting.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3913
Document:	Binder X ICDs	Category: Technical	
Location:	IAG-64, Stage II, ICD between the ERS and all other Systems		
Comment:	Page 14, Section 3.6.2.1		

99. The text in this section states that the maximum weight of overpack containers is 2,000 pounds (for the waste plus container). Since the maximum carrying capacity of the Mobile Drum Handler (IAG-63, page 14, section 3.4.2.1; also per Binder 16-B, MLA Drum Load-out Design EDF, page 18) is only 1,500 pounds, how will overpack containers be moved? Alternatively, how will these overpack containers be removed from the EEF, if not via the MHC using the Mobile Drum Handler? Please clarify.

Response by Kirt Jamison. The electric forklift for the Environmental Enclosure Facility will be utilized in a number of different configurations. One of those configurations includes the use of the Waldon Drum Handler as an accessory. As such, the forklift will be moving drums from the material loadout area to the fissile monitoring station and from the monitoring station to various staging locations within the EEF. Its load capabilities in this configuration are documented as you have noted in your comment. The forklift will also be utilized to move items into and out of the RAE airlock, including overpacks. In this configuration, the forklift will be capable of moving loads of greater than 2000 lbs. The procurement specification for the forklift (SPC-246) requires a 5000 lbs. load capability. This forklift will also be used to convey overpack containers to other parts of the EEF or to load the container for removal from the EEF. In addition to the procurement specification (SPC-246), the Facilities SDD (Binder XI-A) calls out the specifications for this forklift on p. 109. If overpack containers coming out of the RAE airlock are lighter than 1500 lbs. and use of the Mobile Drum Handler would be a more effective tool for moving the container then the handler may be used. We recommend adding a note to the IAG, which clarifies the use of the EEF forklift for overpack containers and points the reader to the procurement specification and the Facilities SDD if more information is desired.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3914
Document:	Binder X ICDs	Category: Industrial Safety	
Location:	IAG-66, Stage II, ICD between the SS and all other Systems		
Comment:	Page 17, Section 3.10.2.2		

100. The text states that the Stage II transport vehicle shall not, when fully loaded, exceed the load-bearing capacity of the road to the Storage System. A bridge to be crossed on this road has a load-bearing capacity of 50 tons. The load-bearing capacity of the roadway itself is not stated. The text should state the load-bearing capacity of the road itself. Also, is the sum of the weight of the truck when empty, plus the weight of the materials carried, sufficient information to ensure that these weight restrictions will not be exceeded? Or should a truck scale be included in this design? Please explain.

Response by Doug Morrell. We recommend that the text be modified to include the load-bearing capacity of the roadway. All drums will be weighed following packaging, and administrative controls will be used to verify that the weight of the truck and the drums in transport does not exceed load bearing capacity. We recommend that a truck scale is not required.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3915
Document:	Binder X ICDs	Category: Project Objectives	
Location:	IAG-67, Stage II, ICD between the DAMS and all other Systems		
Comment:	General		

101. Although this IAG describes several types of information to be collected at various points in the retrieval process, it does not describe whether information collected at one part of the process can be related to other information collected in a different part, but for the same unit of soil or waste. Specifically, will the data be organized so that analyses for material in a given drum can be correlated to a specific xyz point in the pit that it was collected from, and also what the corresponding digface data might be? This information may be quite useful, and the ability to make this correlation should be shown in this IAG.

Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMS subsytem already addresses this topic in detail, additional clarification should be present in the IAG.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3916
Document:	Binder X ICDs	Category: Project Objectives	
Location:	IAG-67, Stage II, ICD between the DAMS and all other Systems		
Comment:	General		

102. A check of Binder 11D, Appendix D, shows that xyz data will be collected and correlated to each drum of soil and waste. However, the IAG should reiterate this information.

Response by James Case. We recommend incorporating the clarification proposed by the commentor. Although the SDD for the DAMs subsytem already addresses this topic in detail, additional clarification should be present in the IAG.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment # 3917
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Other (clarification/wording)	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		
Comment:	General		

103. Please show the need for a structure for securing objects within the Storage Facility, as noted in Binder 5, Physical Security Plan, Pages 7 and 8, Section 6.5.7. None of the drawings in Binder 23 show such an area.

Response by Doug Morrell. We recommend that a physical security confinement area not be installed as part of the construction process. However, we recommend that a drawing be prepared that identifies the proposed location in the event that the need for a physical security confinement arises during operations. The proposed location would be in the South-East corner of the storage facility. Verbiage should be included in the Summary of Work section of the specification describing the need for allocation of space for the potential "future" confinement installation.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4046
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Other (clarification/wording)	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 12, Section 1.5		

70. The description of Stage II activities in this section describes an operational readiness review by BBWI and DOE-ID, but no EPA or State of Idaho pre-final inspection. Add a prefinal inspection by both EPA and the State of Idaho to this section.

Response by Phil Rice. We recommend not pursuing the action proposed in the comment. Section 8.7.3 of the RD/RA Work Plan clearly states that the prefinal inspection is performed as specified in the FFA/CO. The prefinal inspection already falls under the jurisdiction of the State and EPA.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4047
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Other (clarification/wording)	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 57, Section 8.4.1.1		

71. Text states "The membrane is not designed to function as a structural member such that the integrity of the structural framework will not be affected should any damage to the membrane occur." This is ambiguous. Suggest changing text to state "The membrane is not designed to function as a structural member; specifically, the structural framework will not be affected if the membrane is damaged."(Italics show suggested changes)

Response by Dave Stephens. It is recommended that the text be revised as suggested.

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment #	4053
Document:	Binder II Process Definition and Data Needs	Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10731 Field Sampling Plan Page 4-12, Section 4.3.3.1			
Comment:				

77. This section describes fingerprinting of various sludges, that is, identifying specific sludge types based on specific, easily verified, expected characteristics of each. However, there is no clear description of the expected differences.

Response by Mark Borland. We recommend not pursuing the action proposed in the comment. Section B.1 of Appendix B of the Field Sampling Plan (Binder II) provides a tabulated "Methods of Comparison" for various sludge types. The section provides unique identifying parameters for distinguishing each sludge type as well as an application discussion explaining how to utilize the parameter. If additional detail or different format of data is necessary please clarify. (Same as comment 4054)

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment #	4054
Document:	Binder II Process Definition and Data Needs	Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10731 Field Sampling Plan Page 4-12, Section 4.3.3.1			
Comment:				

78. A table showing specific characteristics (color, consistency, chemicals present, and expected concentrations) for each sludge type, which is then correlated to expected screening results, would be useful. For example, will trace amounts of carbon tetrachloride in a headspace analysis definitely indicate a specific type? Or will a minimum detected concentration in headspace vapors be needed to determine a specific type? What parameters are indicators (presence of characteristic X suggests a certain type), as opposed to necessary (to be identified as a specific type, characteristic X must be present), as opposed to unique (presence of characteristic X identifies a specific sludge type)? These issues should be discussed in the context of the purpose of fingerprinting sludges.

Response by Mark Borland. We recommend not pursuing the action proposed in the comment. Section B.1 of Appendix B of the Field Sampling Plan (Binder II) provides a tabulated "Methods of Comparison" for various sludge types. The section provides unique identifying parameters for distinguishing each sludge type as well as an application discussion explaining how to utilize the parameter. If additional detail or different format of data is necessary please clarify. (Same as comment 4053)

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4048
Document:	Binder II Process Definition and Data Needs	Category: Other (clarification/wording)	
Location:	DOE/ID-10731 Field Sampling Plan Page 4-5, Section 4.3.1.2		
Comment:			

72. Composite interstitial soil samples will be collected for analysis; these samples will be collected in one foot increments from identified grids. The text does not clearly describe how these samples will be combined for compositing; will several samples be collected at each depth increment from a given grid, and then composited? Or will one sample be collected from each depth increment, and used as aliquots for compositing? Compositing can be useful for screening purposes, but the purpose of these soil samples is to show whether contaminants are migrating. If aliquots from different vertical sections are composited, then the results from the blended samples will not be useful for showing contaminant migration, since it will be difficult to show how contamination rises or falls with increasing depth. Please specify the compositing method planned, including the number of aliquots per composite sample, how aliquots will be collected for compositing, and how the aliquots will be mixed to produce the composite sample.

Response by Beth McIlwain. We recommend adding clarification of the compositing method envisioned for collecting samples at the digface. (The original intent was to scoop fractions from the exposed digface surface to make composite sample.)

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4049
Document:	Binder II Process Definition and Data Needs	Category: Other (clarification/wording)	
Location:	DOE/ID-10731 Field Sampling Plan Page 4-5, Section 4.3.1.2		
Comment:			

73. The compositing method(s) to be used should be specified for all composite samples specified in Table 4-1.

Response by Beth McIlwain. We recommend adding clarification to Table 4-1, and corresponding text sections, regarding the compositing method to be employed for composite samples.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4050
Document:	Binder II Process Definition and Data Needs	Category: Statistics	
Location:	DOE/ID-10731 Field Sampling Plan Page 4/2, Table 4-1		
Comment:			

74. Forty samples of drummed underburden (less than 10 nCi/gm) soil will be collected for VOC, SVOC, PCBs, and CLP metals analysis, so that a mean concentration of these samples may be obtained. The purpose of this mean concentration is not clear, since individual drums will have to be stored and handled according to what they individually contain, not according to a mean concentration as a group. Individual drums of underburden could contain widely varying concentrations of contaminants of concern, depending on the degree of release from nearby waste drums, and the proximity and original contents of those waste drums.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4051
Document:	Binder II Process Definition and Data Needs	Category: Statistics	
Location:	DOE/ID-10731 Field Sampling Plan Page 4/2, Table 4-1		
Comment:			

75. Please explain the purpose of calculating a mean concentration for these underburden soils, or allow for each drum of underburden soil to be sampled.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4052
Document:	Binder II Process Definition and Data Needs	Category: Statistics	
Location:	DOE/ID-10731 Field Sampling Plan Page 4/2, Table 4-1		
Comment:			

76. It is noted that a mean concentration of overburden soils (again, for those soils less than 10 nCi/gm) will also be calculated; however, these soils are expected to be relatively unaffected by any releases that have occurred. Hence, they are expected to have fairly homogeneous concentrations. However, if there are wide variations in contamination in overburden soils, the assumption of homogeneity is no longer valid, and each drums' contents should be analyzed for contaminants of concern.

Response by Comment Processing CPT. As agreed to at the 10/3/00 Agency Face-to-Face Meeting there is no design impact and there is no change required to the RD/RAWP documents as a result of these comments. Samples will be taken from all drums. A subset of the samples will be analyzed in support of safe storage requirements. Anticipated movement of materials from the Storage Facility will be discussed in the RA Report. [This is a consolidated response to comments 4050 (Binder II), 4051 (Binder II), and 4052 (Binder II).]

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4055
Document:	Binder II Process Definition and Data Needs	Category: Technical	
Location:	DOE/ID-10731 Field Sampling Plan Page 6-14, Section 6.6.4.1		
Comment:			

79. Table 6.3 states that one, 55- ,allon drum each of various kinds of leftover samples are anticipated from digface sampling. However, compatibility among the different kinds of samples that will be placed in a single drum is not taken into account. Leftover sampling material from one sample may not be compatible with leftover material from another sample, and hence, more than one drum of each type of sampling wastes will likely be generated. Compatibility among materials that will be packaged together should be addressed in this text.

Response by Beth McIlwain. We recommend incorporating the proposed change into the solution.

EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4056
Document:	Binder II Process Definition and Data Needs	Category: Technical	
Location:	DOE/ID-10731 Field Sampling Plan Page 6-14, Section 6.6.4.1		
Comment:			

80. To a degree, the same comment as above applies to Tables 6.4 and 6.5, although these tables describe an anticipated 171 and 168 total drums of material, respectively. With this number of drums, segregation according to compatibility will be more practical. However, compatibility of wastes should still be discussed in text accompanying these tables.

Response by Beth McIlwain. We recommend incorporating the proposed change into the solution.

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EPA	Reviewer: EPA Vicki Rhoads	Significant? No	Comment # 4057
Document:	Binder II Process Definition and Data Needs	Category: Chemistry/Radiochemistry (SMO)	
Location:	DOE/ID-10731 Field Sampling Plan Page 7-3, Section 7.2.1		
Comment:			

81. Text states that samples will be preserved "according to the requirements of the QAPjP (INEEL 1997)." According to that QAPjP, some liquid samples require preservation with acids, in addition to being cooled to specified temperatures. For example, liquid samples for CLP Metals analysis requires acidification with HNO3 to a pH less than 2. Please confirm whether this acidification will react poorly with any anticipated liquid samples.

Response by Beth McIlwain. We recommend incorporating a change to clarify liquid (or unknown liquid) versus water matrix and how preservation measures will be applied.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3991
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan Page 102, Section 13		
Comment:			

219. Given that the Stage II retrieval process allows for discrete removal of wastes rather than homogenization and given that soils, empty drums, and various drummed wastes will be retrieved, the discussion on hazardous waste determination needs clarification. For wastes being shipped outside the AOC, a hazardous waste determination is required to move wastes into a TSDF.. However, for managing wastes within the AOC, waste characterization for safe management is required, which is not the same as a hazardous waste determination.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

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Printed: 10/30/00

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**3992**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan Page 105, Section 13.3			
Comment:				

220. What does the term "managed as listed waste" mean in the context of this CERCLA action? Not all wastes (in addition to graphite) and soil retrieved from Stage II will qualify as listed waste or contained in.

Response by Brent Burton. We recommend that no change to the document be made in response to the comment. It is not agreed that "waste" forms, other than graphite, are appropriately managed without assignment of listed waste codes. Available process knowledge information indicates that, other than graphite, the expected waste forms in the Stage II baseline area are associated with listed waste codes.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**3993**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan Page 115, Table 10			
Comment:				

221. It is not clear the basis for a 20% contingency on the Design and construction costs when the design is at 90% completion. It also appears that the cost estimate includes sunk cost, which would appear unnecessary.

Response by Dave Wilkins. We recommend clarifying the estimate and basis for estimate. Rationale: It is unclear to the reader why and how the contingency and expended cost are accounted for within the cost estimate.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	**3985**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan Page 12, Section 1.4			
Comment:				

213. Identify the reference (i.e., DOE Order or Directive) for classifying wastes as "orphan"

Response by Brent Burton. We recommend deleting the orphan waste definition presented in the document. Instead of using this term, it is recommended that the corresponding TRU concentration values be presented (i.e., material > 10 nCi/g TRU < 100 nCi/g TRU). References/information explaining the concept of orphan waste can be provided if requested (e.g., DOE 435.1, RRWAC, TRU WAC).

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3986
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan Page 19, Table 3		
Comment:			

214. There appears no correlation between the planned dates listed in Table 3 and the Working Schedule in Binder XXIV. For example line 219 has the draft RA Report being submitted to the Agencies approximately 7 years after the June 2000 submittal of the 90% RD/RAWP, rather then on April 30, 2000.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3987
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Rad Safety	
Location:	PLN-679 RD/RA Workplan Page 61, Section 8.4.1.6		
Comment:			

215. It is unclear whether steps are provided to lock-out the potential introduction of water into the retrieval pit from the hoses if the Dig Face Monitor or other data sources indicate that high concentrations of fissile material may be present.

Response by Todd Taylor. The design does not provide automatic lockout against the introduction of water into the retrieval pit when the Digface Monitor indicates high concentrations of fissile material. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend that this topic be discussed at the meeting.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 3988
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan Page 73, Section 8.4.4.3		
Comment:			

216. It should be noted that the SHC a trade study is ongoing to determine if the SHC will need to be outfitted with additional sample access capability.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend completing the Soils Trade Study within its current scope. [This is a consolidated response to comments 3921 (Binder I-A), 3933 (Binder II), 3934 (Binder III), 3960 (Binder XI-C), Binder 3962 (Binder XI-C), 3974 (Binder XVII), and 3988 (Binder I-A).]

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Printed: 10/30/00

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**3989**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan Page 76, Section 8.5			
Comment:				

217.** It should be clear that any Statement of Work issued by INEEL or its contractor must be in accordance with the design and operating requirements specified in the Agencies' approved Stage II RD/RAWP.

Response by Dave Wilkins. We recommend adding language in the work plan to make it clear that procurement subcontracts will be in compliance with the Agency approved Stage II RD/RA Work Plan.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	**3990**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan Page 85, Section 8.10			
Comment:				

218. What modeling is anticipated to predict whether a fire/explosion would occur from driving sheet or H-piles? If the modeling could affect the RD/RAWP requirements, how will this be addressed?

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	**3994**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix B, EDF-ER-151, Document Hierarchy and Deliverables Diagram			
Comment:				

222. Given that the working schedule suggests that 1 1/2 yrs will be required to perform the retrieval operations, the O&M Plan Phase III will likely undergo change during Operations Activities. This should be reflected on the diagram.

Response by Dave Wilkins. We recommend revising the diagram to indicate allowance of O&M activities to be adjusted as we learn. Rationale: Operations and Maintenance activities will evolve as the project progresses.

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Printed: 10/30/00

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	3995
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix B, EDF-ER-151, Document Hierarchy and Deliverables			
Comment:	Page 10, EDF			

223. The O&M Plan Phase IV is actually the O&M procedures for post retrieval operations that include storage operations and retrieval facility standby.

Response by Jeff Bryan. Concur, it's actually both. For clarification, the final operations procedures are planned to be provided as input to the RA Report as well as the proposed O&M procedures for post-retrieval operations (e.g., storage operations and facility cold standby procedures) -- both as a part of the Phase IV update.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	3996
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix E, IAG-52 Interface Agreement Between Stage I and Stage II			
Comment:	General			

224. This Interface Agreement, dated January 2000 requires updating to reflect current schedule realities.

Response by Jeff Bryan. We recommend updating the Stage I/Stage II Interface Agreement (IAG-52) to reflect current schedule realities.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment #	3997
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix F, Community Relations Plan RD/RA Elements, Para 1.8			
Comment:	Appendix F			

225. In addition to including the Community Relations Plan, the draft Fact Sheet explaining the Stage II design should be included here.

Response by Dave Wilkins. We recommend revising the Appendix to include the draft Fact Sheet.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	3998
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix G, High Level Schedule through Stage II Activites			
Comment:	Gantt Chart			

226.** This schedule does not meet enforceable deadlines.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 3999
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix G, High Level Schedule through Stage II Activites Gantt Chart		
Comment:			

227.** It appears that the schedule calendar is using working days for durations. Therefore, the time periods identified for FFA/CO activities like document review are incorrect.

Response by Dave Wilkins. We recommend converting the calendar day duration to equivalent working days. Rationale: Schedule line 162, as an example, shows 45 working day duration rather than the equivalent 32 day working days associated with a 45 calendar day duration. Additionally, the DOE has submitted a request for extension (EM-ER-188-00) and this issue is under review by the Tri-party Agencies.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4004
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout Page I-10, D-0056		
Comment:			

232. EPA's comments on the 90% RD for the Storage Building stated, "A major concern we have with the document submitted is that it does not include those component documents which would comprise the 90% Remedial Design and Remedial Action Work Plan, i.e., O&M Plan; Waste Management Plan; QAPjP; detailed cost estimate; Performance Measurement points; critical path schedule; site-specific HASP; etc. as identified in the INEEL RD/RA Guidance."

Response by Mona Dunihoo. We recommend no action be taken in response to this comment. The 90% Storage Package referenced in the comment was an incremental submittal of a portion of the 90% RD/RA Work Plan. As such, it was not intended to be a complete 90% RD/RA Work Plan submittal. The June 2000 90% RD/RA Work Plan submittal contained all of the required content, as agreed to and documented in EDF-ER-151, Document Hierarchy and Project Deliverables. Please note that, as agreed, the project specific Health and Safety Plans (for Construction and Operations) are to be provided post 100% design and prior to ORR.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4000
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-3, D-0003		

228. No formal decision was made to reduce the MHC throughput to 4dms/day over 2 shifts. It was recognized that throughput by itself was not a project driver. Binder XVI-C includes no distinction on throughput for the various options. In fact it states at page 10, "Facility and equipment must be sized to process on the average 1 drum per hour or 10 drums per day.

Response by Mark Borland. We recommend incorporating the proposed change into the solution. We concur no formal decision was made to reduce the MHC throughput to 4 drums per 2 shift day. The formal decision was in selection of a material processing approach. We recommend revising the decision database to state "Small Manual Option for Manual Handling Cell is selected." For clarification to remaining comment, the statement referenced on page 10 which states "Facility and equipment must be sized to process on the average 1 drum per hour or 10 drums per day", is not a requirement. It was an interpretation of a Reliability requirement. As noted later on page 18 of the same EDF-ER-139, it was determined that the throughput requirement for Stage II was flexible. For example, if the ORR was reduced by 6 months due to equipment simplicity, then 6 months could be added to the retrieval schedule.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4001
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-7, D-0034		

229. No formal decision was made on the use of HELP 3 for modeling the Stage II groundwater risk. In fact, HELP 3 models precipitation leakage rate through landfill covers and liners, neither of which exist with regards to Stage II.

Response by Bob Carpenedo. We recommend that the Decisions Report be corrected since we agree that no decision was made to use HELP 3 for modeling the groundwater risk. In reality this is a closure issue and not a Stage II issue.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4002
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental	
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout		
Comment:	Page I-8, D-0038		

230.** A TSCA compliant storage building cannot be located in a floodplain. The discussion concerned whether recontouring the land so that it was outside the floodplain and subsequent construction of the facility would meet TSCA storage requirements.

Response by Brent Burton. We recommend changing the language in the decision database to state: "Recontouring the surrounding land and raising the elevation of the storage building such that it is outside of the 100 year floodplain will meet TSCA storage requirements."

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4003**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout Page I-8, D-0042			
Comment:				

231. The Storage Building location meets the definition of AOC contained in the OU 7-10 SOW.

Response by Doug Morrell. We recommend that no action be taken in response to this comment. The decisions list identifies that the storage building location is acceptable to the Agencies and will be considered in the AOC.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4005**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix J, ARARs Implementation Matrix 761.61(a) (5)			
Comment:				

233. This citation is outside the scope of the OU 7-10 ROD

Response by Brent Burton. We recommend making no change to the document as a result of the comment. The citation is from the TSCA "megarule" that was included as an ARAR in the 1998 Pit 9 ESD. Thus, it is not apparent why the commentor states that the citation is outside of the scope of the Pit 9 ROD. Further clarification should occur before changing the matrix.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4006**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Environmental		
Location:	PLN-679 RD/RA Workplan, Appendix J, ARARs Implementation Matrix Table J1			
Comment:				

234.** MCP-3475 is not an Agencies' approved document and is not a substitute for compliance with ARARs. A case in point is Section 4.11.6 of the MCP which fails to mention the Off-Site Rule requirements.

Response by Dave Wilkins. We agree that MCP-3475 is not an Agencies' approved document and is not a substitute for compliance with ARARs. We recommend that the ARARs Implementation Matrix remain as is. MCP-3475 is an internal procedure that is intended to implement the referenced CFRs. With regards to the Off-Site Rule requirements, they are covered in the governing Waste Management Plan.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4017**
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan General			
Comment:				

245. Discussion concerning Stage I coring requires updating

Response by Brent Burton. We recommend updating the waste management plan concerning Stage I coring.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4015
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan Page 4-2, Section 4.1.1			
Comment:				

243.** Stage II is a post-ROD activity and the waste generated are remediation waste, which must be managed on-site in accordance with the ROD stated ARARs.. Whether we choose to label this wastes as IDW, it is not equivalent to RI/FS samples which can be returned to the sample site. Return of wastes to the pit would need to be in accordance with the ROD criteria.

Response by Brent Burton. We recommend that Section 4.1.1 (discussion of IDW management) be removed from the waste management plan as it is agreed that ROD criteria apply, the section adds little value, and may cause confusion.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4016
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10789 Waste Management Plan Page 4-6, Section 4.1.4			
Comment:				

244. The statement that Pit 9 derived materials will be analyzed for PCB's requires clarification as to what representative sampling methodology will be applied. For example, for soils will the procedures proposed for listed wastes be applied?

Response by Brent Burton. We recommend that no change to the waste management plan be made because the OU 7-10 Stage II Field Sampling Plan adequately defines the sampling methodologies for the project, including sampling for PCBs.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4018
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan Page 3-19, Section 3.3			
Comment:				

246. This section needs updating concerning Stage I coring.

Response by Brent Burton. We recommend updating the plan concerning Stage I coring.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4008
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation Page 10, Table 3			
Comment:				

236. The inventory data in Table 3 is not consistent with Table 4 of the draft Stage I Subsurface Exploration and Treatability Studies Report. For example, the Pu-239 activity is listed as 24 Ci in Table 3 vs.34 Ci in the draft Report. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the solution. If it is determined that the Stage I data should be used, we believe the Stage II air emissions will still be below the maximum allowables.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4009**
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation Page 10, Table 3			
Comment:				

237. The 218 number of drums listed is inconsistent with the expected number of drums (non-empty) stated in Table 1 of the draft Stage I Subsurface Exploration and Treatability Studies Report. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4010**
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation Page 26, Table 13			
Comment:				

238. The value of 5.9 E-01 for TCE AACC is incorrect. IDAPA 58.01.01.586 lists the AACC for TCE as 7.7E-01.

Response by Jim Rose. We recommend incorporating the proposed change in both affected EDF's. The value that was used is more conservative than the suggested value. However, the suggested value is correct.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4007**
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation Page 5, Table 1			
Comment:				

235. The inventory data should be that expected to be within the design Stage I/II location. Table 4 of the draft Stage I Subsurface Exploration and Treatability Studies Report provides a more defensible source term for Pu especially given the apparent non-uniform disposal of such wastes in Pit 9. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4011**
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-99-00363 Chemical Compatibility Assmt for Stage I & II Waste Generation Activities Page 2-1, Section 2.1			
Comment:				

239. The Stage I activities discussion needs updating.

Response by Bob Carpenedo. We recommend updating the Chemical Compatibility Assessment document to show the most current Stage I activities as of the issue of the final design package.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4012
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	INEEL/EXT-99-00363 Chemical Compatibility Assmt for Stage I & II Waste Generation Activities			
Comment:	Page 4-4, Section 4.2.1..2			

240. It is stated that testing & screening may be required assumably based on an observational approach. However, given that it is not expected that structurally intact drums will be recovered, how will potential incompatible waste mixing be avoided if testing is not required for all mixed loads?

Response by Brent Burton. We recommend not making a change to the chemical compatibility assessment report, but rather addressing the comment as part of the post-Title II design activities when the operations procedure is written governing this testing. It is felt that the operations procedure is the appropriate place in which to address the detail level associated with this comment.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4013
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	PLN-651, INEEL/EXT-2000-00405 QAPjP for TAPS Emissions Monitoring Stage II			
Comment:	Page 24, Table 3-1			

241. What is the basis for selecting 90% completeness? For critical samples a 100% completeness should be the goal.

Response by Paul Ritter. We recommend no change to the document as a result of this comment. The objectives were set so that some data loss could be tolerated without qualifying the emissions estimates. Missing 1 sample in 100 or even 10 in 100, at random times, probably won't have any adverse affect on the quality of our emissions estimates.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4014
Document:	Binder V Env/Saf/Q Docs	Category: Environmental		
Location:	PLN-651, INEEL/EXT-2000-00405 QAPjP for TAPS Emissions Monitoring Stage II			
Comment:	Page 24, Table 3-1			

242. PS-9 as given at 40 CFR Part 60 Appendix B, is not a testing method, it is a specification for GC continuous emission monitoring. Also, the specification precision as stated in Section 4.6 should be <5%.

Response by Brent Burton & Paul Ritter. We recommend changing the heading for the table to reflect the fact that PS-9 is not a testing method. We agree that the precision specification should be less than 5%, per PS-9, section 13.2.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4020
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 11, Section Table 3		

248.** Care should be taken over introducing significant quantities of water in areas with high fissile material loadings. An estimate on a limiting quantity of water that can be introduced based on Dig Face Monitor reading should be made.

Response by Todd Taylor. In the 10/2/00 Agency Face-to-Face Meeting it was agreed to hold a meeting to discuss and resolve criticality issues. We recommend that this topic be discussed at the meeting.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4021
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 12, Section 3.1		

249. It may be more appropriate for planning purposes to assume that a single drum may contain up to 55 gal of liquid and that a drum may rupture upon transfer from the ITM in the MHC.

Response by Brent Burton. We recommend that the suggested assumption be included as a maximum or bounding assumption.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4022
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 24, Appendix B		

250. The discussion on the WERF needs updating.

Response by Brent Burton. We recommend updating the appendix re: WERF as requested.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4019
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 7, Section 2.1.2		

247. Given that coring data will not likely become available, it may be more appropriate for planning purposes to assume that a single drum may contain up to 55 gal of liquid at a <1% frequency.

Response by Brent Burton. We recommend that the suggested assumption be included as a maximum or bounding assumption.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4023
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix L, Spill Prevention Control and Counter Measures Plan		
Comment:	General		

251. This document is incomplete.

Response by Brent Burton. We recommend not changing the document in response to the comment. The document was submitted as an annotated outline per agreement with the Agencies and will be completed post Title II. If the reviewer believes the outline is incomplete a specific comment is in order.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4024
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix M, Storage Facility Waste Acceptance Criteria (WAC)		
Comment:	General		

252. This document is incomplete.

Response by Brent Burton. We recommend not changing the document in response to the comment. The document was submitted as an annotated outline per agreement with the Agencies and will be completed post Title II. If the commentor believes the outline content is not complete a specific comment is in order.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4025
Document:	Binder VII-C App H-O	Category: Environmental	
Location:	O&M Plan-678, Appendix O, Inspection and Monitoring of Drums		
Comment:	General		

253. The document is specific to drums, however, other containers (e.g., used ITM's) may also be stored and should be addressed.

Response by Doug Morrell. We recommend that when this annotated outline is completed as a Technical Procedure that it be written to support inspection and monitoring for all approved and reasonable storage containers.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4027
Document:	Binder XI-A SDD-20 Facilities	Category: Environmental	
Location:	SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD		
Comment:	Page 109, Section 9.4		

255. Minimum specifications should be provided concerning the forks.

Response by Kirt Jamison. SPC-246, Electric Forklift for the Environmental Enclosure Facility, provides the specifications for the EEF forklift. Attachment A to SPC-246 lists the specification requirements. We recommend adding a reference to SPC-246 in the Facilities SDD and adding the Appendix A specifications as part of the key specifications requirements on page 109 of the Facilities SDD.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4026
Document:	Binder XI-A SDD-20 Facilities	Category: Environmental	
Location:	SDD-20, INEEL/EXT-2000-00264, Stage II, Facilities - SDD		
Comment:	Page 82, Section 7.2.1		

254. It appears that hose reels are provided to deploy water into the RAE. However, the operational overview only discusses CO2. How water will be used in the RAE needs clarification given the potential criticality concerns.

Response by Kirt Jamison. The first paragraph of section 7.2.3, Operational Overview, describes the Dry Pipe System, which distributes the water to the facility. Section 7.4.1.4.4, Principles of Operation, also describes the Water Automatic Dry Pipe Sprinkler System. We recommend clarifying the wording in these sections to be more specific regarding this as a water system. In addition, how water will be used in the RAE is being revisited as part of the Pit Water Moderation engineering evaluation. This topic, including the bounding accident scenario, will be discussed with the Agencies (by Todd Taylor and Rod Peatross) and an appropriate path forward defined. Once these discussions have occurred additional/modified text will likely be recommended for the Facilities SDD.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4028
Document:	Binder XI-B SDD-21 ERS	Category: Environmental	
Location:	SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD		
Comment:	Page 54, Section 4.1.1.4.2		

256. It may be worthwhile to include a drill (or rotodrill) to assist in sizing operations. [See also UCN # 3149.]

Response by Comment Processing CPT. We recommend adding a drill (or rotodrill) and bits to the ERS tool set to assist in sizing operations. [This is a consolidated response to comments 3149 (Binder XI-B) and 4028 (Binder XI-B).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4029
Document:	Binder XI-D DAMS	Category: Environmental	
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD		
Comment:	Page 38, Section 2.3.2.2.3		

257. There appears to be a discrepancy concerning the definition of "waste container." Initial retrieval will be of waste containers and samples may be collected. These wastes will be repackaged into new containers and again samples may be collected. The definition of waste container used only addresses the repackaged wastes.

Response by James Case. We recommend incorporating clarification regarding the definition of "waste containers." The SDD also includes the terms "soil containers" and "special case containers" which may require similar clarification to aid in the definition of "waste containers."

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4030
Document:	Binder XI-D DAMS	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 45, Section 2.3.2.2.3			

258. A data element for Waste Compatibility Category may also prove useful for tracking purposes, as samples may be categorized by visual clues in the MHC alone.

Response by James Case. We recommend drafting a Change Request to add the new requirement to the baseline. Presently, no requirements have been identified regarding tracking for waste compatibility.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4031
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement			
Comment:	Figure 52			

259. It is unclear what circumstances would lead to partially filled ITMs being returned to the Pit in the process described?

Response by Jim Rose. We recommend there be no change to this document in response to this comment. The potential does exist to return a partially filled ITM to the RAE. For instance, if an object could not be sized sufficiently to fit into a 55 gal drum it might go back for special handling. Or if a lab pack or unknown liquid is encountered such that repackaging must wait for the results of lab sample analysis, it might be temporarily returned to the RAE.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	4032
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement			
Comment:	Figure 52			

260. It is unclear why drums which cannot be assayed would be stored in Assay Lan Storage?

Response by Jim Rose. It is clear the question asked by the referenced decision block can be misinterpreted. Therefore, we recommend changing the words from "Can Assay?" to "Can Assay Now?".

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4033
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental	
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement		
Comment:	Figure 52		

261. The process flows appears to indicate that samples would only be analyzed outside of the RAE or MHC. Real-time screening measurements (e.g., pH, PID, hand-held radiation meter, etc.) should complement laboratory analyses.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4034
Document:	Binder XI-E SDD-25 Supplement	Category: Environmental	
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Supplement		
Comment:	Figure 53		

262. The process flows appears to indicate that samples would not directly factor in the excavation plan. Real-time screening measurements in the RAE (e.g., pH, PID, hand-held radiation meter, etc.) should complement the DFM.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: We recommend reviewing the design (including DAMS) for its ability to accommodate portable instruments, and revising the RD/RAWP package as needed to accommodate them. We also recommend addressing contingent operations for use portable instruments in the Phase II O&M Plan. If it is determined later that portable instruments are distinctive to the retrieval process we recommend further evaluation of the design and incorporation of any needed changes. [This is a consolidated response to comments 3953 (Binder XI-C), 4033 (Binder XI-E) and 4034 (Binder XI-E).]

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4036
Document:	Binder XIV-A RAE	Category: Unspecified	
Location:	EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building		
Comment:	EDF-ER-111		

264. Is it correct to assume that no material will be staged at grade in the RAE?

Response by Phil Rice. We recommend pursuing no action with respect to the question. It is not correct to assume that no material will be staged at grade in the RAE. Some material may be staged at grade on occasion, but only in accordance with proper radiological control practices (such as additional shielding, distance, or time constraints).

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4035
Document:	Binder XIV-A RAE	Category: Unspecified	
Location:	EDF-ER-111, INEEL/EXT-99-01251 Stage II Shielding Evaluation for the Retrieval Building		
Comment:	EDF-ER-111		

263. The activity listed for Pu-239 is not consistent with other estimates (e.g., 35Ci in the July 2000, Stage I Treatability Report).

Response by Mark Borland. We recommend rerunning the shielding analysis using the source term data associated with the published inventory in the Stage I/II area (letter RWT-02-99) and compare results, and if greater, evaluate the impact on the design.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4038
Document:	Binder XIX Storage Part II	Category: Environmental	
Location:	SPC-245, Stage II -- Nondestructive Assay Service		
Comment:	Page 2, Section 1.3		

266. The unit should be capable of handling 85gal drum over packs, also.

Response by Comment Processing CPT. As presented at the 10/2/00 Agency Face-to-Face Meeting, we recommend that the issues posed by these comments be resolved by conducting a trade study to determine the most appropriate approach (technically and cost/ schedule) for assay of soil and waste, with considerations for impact to, and interfaces with, the Soils Trade Study and criticality measurement equipment and processes. The outcome of the trade study would be the basis for development of a Change Request. [This is a consolidated response to comments 3918 (Binder I-A), 3919 (Binder I-A), 3920 (Binder I-A), 3922 (Binder I-A), 3927 (Binder II), 3928 (Binder II), 3929 (Binder II), 3937 (Binder V), 3939 (Binder V), 3948 (Binder VI), 3951 (Binder VII-D), 3955 (Binder XI-C), 3956 (Binder XI-C), 3957 (Binder XI-C), 3965 (Binder XIX), 3966 (Binder XIX), 3967 (Binder XIX), 3968 (Binder XIX), 3969 (Binder XIX), 3971 (Binder XIX), 3972 (Binder XIX), 3977 (Binder XVIII-A), 3981 (Binder XVIII-A), 3982 (Binder XVIII-A), 3983 (Binder XXVI), 4038 (Binder XIX), 4097 (IRC), 4098 (IRC), 4099 (IRC), and 4100 (IRC).]

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4039
Document:	Binder XIX Storage Part II	Category: Environmental	
Location:	SPC-247, Stage II -- Electric Forklift for the OU 7-10 Storage Facility, WMF-669		
Comment:	Page 3.2		

267. What are the functional requirements for the forks? Is it anticipated that the fork lift be able to accommodate non-paletized loads?

Response by Doug Morrell. We recommend that Functional Requirements for the forks and drum handling equipment be incorporated into the specification and Design Requirements Document Volume 7.

EPA	Reviewer: EPA Wayne Pierre	Significant? No	Comment # 4037
Document:	Binder XVI-C MHC	Category: Unspecified	
Location:	EDF-ER-139, Stage II Material Handling Process Confinement-Design Option Trade Study		
Comment:	Page 11		

265. Depending upon the siting location of the Stage II facility, it is possible that a number of drummed wastes will require "special handling." As this number increases, (e.g., due to TRU content) the value of the decision process summarized in the EDF diminishes and the need to fully describe the "special handling" process increases in importance.

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face Meeting, we recommend providing detailed special handling processes and procedures as part of the Phase II O&M Plan, which is delivered prior to ORR. The processes and procedures should define ranges for which special handling would occur (e.g., grams of Pu, with breaks at 200, 380, 600, and 1000).

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4041
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

269. It appears that the durations listed are working days (e.g., Activity 162), but FFA/CO durations are calendar days.

Response by Dave Wilkins. We recommend making the proposed correction.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4044
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

272. Many of the activities (e.g., the GFE Equipment) are filtered schedules without a listing of assumptions to support the durations listed.

Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, within two weeks EPA and IDEQ will provide a list of activities from the schedule in the RD/RAWP package for which they request schedule planning assumptions. DOE will then provide the assumptions to EPA and IDEQ by a date to be agreed upon based on the number of activities involved.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment # 4042
Document:	Binder XXIV Cost and Schedule	Category: Environmental	
Location:	90% Working Schedule Through Stage II		
Comment:	Working Sched.		

270. No successors or precedents are provided identifying how activities are linked.

Response by Dave Wilkins. We recommend providing this information. Rationale: Schedule is unclear to the reader without this information, however, successors and precedents are always evolving and being changed to optimize resource utilization and influences on the critical path.

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EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4043**
Document:	Binder XXIV Cost and Schedule	Category: Environmental		
Location:	90% Working Schedule Through Stage II			
Comment:	Working Sched.			

271. The schedule does not show linkage to the WBS to allow evaluation of cost with schedule

Response by Dave Wilkins. We recommend providing this information. Rationale: Relationship of the cost elements is not clear to the reader. Remedial design provides a cost estimate and a schedule. It is desirable but not necessary to have a one for one correlation between WBS and the cost estimate.

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4040**
Document:	Binder XXIV Cost and Schedule	Category: Environmental		
Location:	Cost & Schedule			
Comment:	General			

268.** The working schedule does not support the enforceable deadline dates.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

EPA	Reviewer: EPA Wayne Pierre	Significant? Yes	Comment #	**4045**
Document:	Binder XXVI Project Management Docs	Category: Environmental		
Location:	PLN-417, Risk Management Plan			
Comment:	Appendix A			

273. Only 3 of 25 identified risks have been closed. No implementation schedule is provided to show how these items will be assessed and abated.

Response by Carol Reid. We recommend that a Cross Product Team evaluate the open risks, determine their current status, document the results of the evaluation, and revise the Risk Management Plan as needed. Any remaining open risks would be added to the OU 7-10 Staged Interim Action Project Action Item Database to be managed by the PM IPT.

EPA	Reviewer: Jim McHugh	Significant? Yes	Comment #	**3926**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Technical		
Location:	PLN-679 RD/RA Workplan			
Comment:	Page 106, Section 13.3			

10. The use of digface monitoring equipment for "real-time" characterization of waste and soil is not fully explained in these design documents, nor are the operational procedures to minimize cross contamination explained. Will the germanium detectors provide a soil TRU nuclide assessment? If so, what are the design requirements?

Response by Jim Rose. This comment speaks to the subject of the currently on-going Soils Assay Trade Study. Hence, this comment is being evaluated as part of that study. Since digface characterization of soils and waste is not currently in-scope, a change request should be written to add a new requirement to the baseline as appropriate.